BRUHAT BANGALORE MAHANAGARA PALIKE

Dasarahalli Zone, Electrical Division

Detailed Estime for Providing and Fixing of LED Street Lights Ward No-02 in Yelahanka Division.

Budget Head : P3110-14th Finance Grant works

Ward No. 02 Estimate No:- 30/16-17 For Rs. 1500000.00

Sl No	SR Page & SL No	Description Of Work	Qty	Rate	Unit	Amount
		KPWD (Ele) S.R.2014-15				
1	4.35.3	LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 Roads as per IS 1944 Part I & Part II.LED Streetlight 65watts	56	18720.00	each	1048320.00
2	108 /17.1.2	Supplying & fixing of 32 mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 or rail or RCC pole/wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires complete. Using 32mm dia G.I pipe	103	893.00	Each	91979.00
3	12/2.12.1	Wiring for lighting / power circuit using one of pvc insulated 1100v grade stranded aluminum unsheathed wire single core cable in open or concealed system of wiring as per IS - 694 : 19904sq mm	540	7.50	Per Mtr	4050.00
4	56/7.6.1	Supplying of 1.1KV grade Aerial Bunched Cable Stranded & Compacted Aluminum Phase Conductor, and Stranded Messenger Conductor with all aluminum Alloy, Phase Conductor is insulated with XLPE Compound, insulated Messenger with specified IS-14255:1995 & confirming to GTP of GROUP-A.2 X 16 + 1 X 25 SQ.MM	500	92.00	Per Mtr	46000.00
5	Bes SR	Stringing of 1.1kv LT Arial Bunched Cable, BESCOM SR	500	10.30	Per Mtr	5150.00
6	AR	Micro processor based electronic timer consisting of Display Unit(LCD), built in Real Time Clock (RTC) and keypad with option to operate relay/contactor in programmable mode (pre-defined ON/OFF time) or astronomical mode (based on sunset and sunrise depending on the latitude and longitude of the location of installation of Switch) or based on Intensity of natural light (lux level using IR sensor), built in software to select the mode of operation by the user	6	7214.00	Each	43284.00
7	6.12.4	Supply and fixing of 4-pole power contactor with NO/NC contacts on existing wood / panel board using necessary bolts, nuts, washers and wiring etc., complete. d) 100-125 Amps	6	9915.00	Each	59490.00
8	47/6.16.2	Supplying and fixing miniature circuit breakes on exisiting MCB distribution boards using necessary fixing materials and wiring complete as required. 40-63 Amps SP	6	677.00	Each	4062.00
9	6/2.6.7	Wiring for lighting/power circuit using one of PVC insulated 1100v grade, multis and **Copper** conductor single core cable in open or consealed system of wiring.I Group A Materials.g)16 sqmm	20	132.00	Per Mtr	2640.00
10	17 /3.10	Supplying and fixing hylum brand hand plastic sheet 3mm thick with necessary nitches for fixing switches, regulators etc., and fixing on existing wood or metal box using N.F.screws.	9500	0.22	SqCm	2090.00

11	2/1.1.3	Open Conduit Systeme: Supplying heavy gauge PVC conditpipe,,,,,,,,,, dia confirming to IS 2509 with suitable size bends,junction boxes, adhesibve paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall stone structure or plug incase of brick walls and cement plastering damaged portionusing heavy gauge saddles at an interval of 700mm using NF screws.c)32mm dia 2.5mm thick	100	100.00	Per Mtr	10000.00
12	49 /6.39.2	Supplying and fixing angle iron frame work fabricated out of M.S angle iron... and M.S. flat... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. a)50X50X6 mm	19	263.00	mtr	4997.00
13	34/5.11	Supplying and stringing of ACSR Conductor (6/2.59mm Al +1/2.59mm Steel).	1000	30.00	Per Mtr	30000.00
14	34/5.9.1	1.1 KV Pin Insulator	30	44.00	Each	1320.00
15	33/5.4.2	2 Pin 45x45x5mm -510mm	30	306.00	Each	9180.00
16	50 I.No-6.42.1	Supply and installation /fixing/Provision of outdoor type thermoplastic modular panel enclousure with transparent polycarbonate lid, shock proof, IP 65(weather proof) rust proof, water proof, corrosin proof having internally embedded gasket on both id and flap suitable to fix. single phase/energy meter in suitable base plate and having a provision for fuse/ MCB cutout with suitable transparent hinged flap opening MCB along with complete tamper proof SEALING facility. 300x450x214mm.	6	4266.00	Each	25596.00
17	50/6.41.1	Supply and Installation / Fixing / Provision of Pole box with HRC Fuse / MCB provision and suitable connector / terminal for 3 Ph / 1 Ph connections with Loop-In & Loop-Out terminals for 10 Sqmm / 25 Sqmm 3.5 C Al/Ar / Cu/Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC Insulated cable, enclosed in a Thermoplastic, Polystyrene enclosure, which should be shock proof, safe, IP65(Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and/or grommets.200mmx200mmx98mm	17	2178.00	Each	37026.00
18	49/6.39.1	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. And M.S. flat... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. a)40X40X6mm	17	263.00	Per Mtr	4471.00
19	46/6.13.A.1	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. (Icu = Ics) THREE POLE 100Amps25kA.	17	4044.00	Each	68748.00
20	55/7.3.1	Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required. GI strip 25x3mm	6	77.00	Per Mtr	462.00
		Miscellaneous				1135.00
		TOTAL				1500000.00

CERTIFICATE :-

1. The place was inspected and the work is essential.
2. The provision made in the estimate are adequate and necessary and the work comes in the BBMP limit and is legitimate Charges on the BBMP funds.
3. The estimate is based on KPWD (Ele) S.R.2014-15 Rates. Effective from 1-08-2014 , BESCOM SR and

Asst. Engineer (Elec)

Asst. Exe.Engineer (Elec)
Sub-Division No.
Bruhat Bangalore Mahanagara Palike

Administrative Sanction for Rs. 15.00 Lakhs
Fifteen Lakhs only
P-3110.
is accorded under head 14th Finance Commission Grants.

Registered as EE No. EE/ELE/42/AS/16/16-17 Subject to conditions contained in enclosed memo No. 52&53 dt=20-2-17 /SNO=16/16-17

EXECUTIVE ENGINEER (ELEC)
YELAHANKA DIVISION
BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer

TECHNICALLY SANCTIONED FOR Rs. 15.00 Lakhs
Rupees Fifteen Lakhs only
P-3110, 14th Finance Commission
Grants.

Registered as EE ( ) No. EE/ELE/42/AS/16/16-17 dt=20-2-17 Subject to conditions contained in enclosed memo EE ( ) No. EE/ELE/42/AS/16/16-17 Dt. 20-2-17

Estimate A/C Sanctioned
P.NO- 52&53 No. SNO=16/16-17
Dated 20-2-17 Rs. 15.00 Lakhs

Executive Engineer